

Conolly (G.)
A PROPOSAL

TO ESTABLISH

COUNTY NATURAL HISTORY SOCIETIES,

FOR ASCERTAINING THE CIRCUMSTANCES, IN ALL LOCALITIES,

WHICH ARE

PRODUCTIVE OF DISEASE OR CONDUCTIVE TO HEALTH.

✓ BY J. CONOLLY, M. D. WARWICK,

Late Professor of the Practice of Medicine in the London University, &c.

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Washington, D.C.

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A PROPOSAL, &c.

AMONG the objects contemplated in the formation of the Provincial Medical and Surgical Association, next to that of promoting the courteous feelings and that interchange of opinions which are alike honourable and advantageous to persons of a liberal profession, there appears to me to be none more important than one which provincial practitioners seem to possess *peculiar* opportunities of advancing. At the same time, it is one so comprehensive, as to be only fully expressed in three out of the five heads under which the objects of the association are stated, in the tenth page of the Introductory Address. To this object, therefore, I beg leave to draw the attention of the readers of the Transactions, in the hope that the suggestions with which I mean to conclude will be found both practical and conducive to many extremely useful ends.

It may, perhaps, be permitted to me, who have had some experience of both situations, to remind the members of the Provincial Association, of certain advantages which the country practitioner possesses over those who exercise the profession in towns; advantages which, although chiefly evident with relation to physicians, are, in some degree, also, more readily attained by the general practitioner in the country, than in very large communities.

These advantages are principally connected with the intimate acquaintance which the country practitioner gradually acquires concerning every circumstance connected with a certain limited locality. He not only becomes thoroughly familiar with the natural scenery, the character of the surface, and the climate of his own district, but he knows the occupations, the habits, the characters, even in their minutest traits, of all his patients, and almost of all his neighbours; their prosperity or adversity are never hidden from him, and their most secret griefs and cares are confided often to his ear alone. By the time that he has practised ten years in any one place, he has learned the history and *constitution* of every family in his neighbourhood, by observations made on two, or, more generally, on three generations. Children have grown up into youths and maidens; the young people of ten years ago, have become married, and are parents; the middle-aged are beginning to feel some of the grievances of the "*age du retour*;" and the old are sinking more or less rapidly, and more or less peaceably, and with more or less suffering, into the inevitable grave.

The various experience thus obtained, and one of the consequences of which is the possession, by medical men, of a greater insight into all that belongs to human society, than either the lawyer or the divine, requires no elaborate preparation nor formal study. It is written in legible characters, presented at every hour of the day and night, in the whole series of the professional occupations of the physician and the surgeon.

But this various experience, which so often dies with him who obtains it, is connected with several of the most important questions that bear upon human health. For, whilst the practitioner views, as presented to him by those around him, an epitome of the "strange eventful history" of all mankind, he can hardly fail to learn truths, which, if compared with those collected by others similarly situated, would enlarge the power of the physician, by teaching the *prevention* of some of the most destructive and least controllable diseases, and, by adding to the means of health, would augment the happiness, the wisdom, and the power of man.

His opportunities, for instance, of ascertaining to what extent the soil, the situation, the climate, the exposure, the water of his district, the habitual diet, the occupations, and the moral character of the individuals who reside in it, influence the health of the body or the mind of individuals or the general population, are such as none but a country practitioner can constantly and completely enjoy.

He is able, without difficulty, and, at all times, to state what are the prevailing diseases in his district; and to observe their connection with, or independ-

ence of, the seasons, or accidental circumstances affecting the inhabitants.

The history, and the whole train of phenomena belonging to chronic and incurable maladies, is many times clearly seen and well remembered by him ; and he can often trace them in the same individual, without difficulty, from the diseases of childhood or the first slight symptoms in adult age which excited alarm.

He is enabled, by his experience, to ascertain the period of life most obnoxious to some of the most dreaded diseases, as phthisis, cancer, &c. ; and to know something of the accidental circumstances which have hastened the development, or retarded or advanced the progress of such affections.

He has peculiar opportunities of verifying the hereditary character of some maladies, and the relation and conversion of many others, and this to an extent which, if fully profited by, would considerably advance a true pathology of several diseases.

The effects of changes of circumstances, from poverty to wealth and ease, or from wealth and ease to privation and anxiety, are frequently and impressively displayed before him.

In numerous instances he is presented with indubitable proofs of the consequences of all the peculiar circumstances arising from the habits, the character, or the rank and situation of his patients ; including various causes of excitement and depression both of a public and private nature :—the effect of early and late marriages ; active and inactive habits ; temperance and excess ; peevishness and contentment ; late and early hours ; family afflictions ; a good or a neglected education.

He can clearly estimate the effects of many diseases on the constitution ; as the remote and permanent effects of fevers, &c. ; and he almost exclusively possesses the means of verifying the *modification* of diseases by hereditary or acquired constitution. His observation supplies him with ample records relating to such diseases as often affect the same individual more than once ; and also of those which, usually only appearing once, appear more than once in the individuals of certain families, or of certain constitutions ; a kind of knowledge on which some important conclusions depend, as in the case of small-pox.

He has the best opportunities of ascertaining to what extent vaccination, in the cases wherein it is practised with the precautions too often neglected, affords protection from small-pox.

His familiarity with domestic details, (a familiarity so difficult of attainment in towns,) supplies him with numerous facts, throwing light on the communicability or non-communicability of fevers and other diseases. It is, indeed, especially with relation to the epidemic diseases which, in every year, ravage almost every district, that the country practitioner might be supposed to gain very exact and useful information. The time of their appearance ; the character of the season or weather ; the character of the epidemic in each year, or of all in different years ; the duration of epidemics ; the order in which different epidemics appear ; *the part of the district known to him in which each epidemic makes its first appearance, and its subsequent track* ; and whether this is uniform in all years, or in all diseases, or ob-

serves any ascertainable rule ; the connection of the particular epidemics, or of their usual character, with any circumstances belonging to the soil, &c. of the district, or to the occupations or habits of the people. All these are subjects which it is quite unnecessary to point out to the medical enquirer as most worthy of his notice, but which have never yet, I may venture to say, attracted that *systematic* observation of which they are deserving, and from which great results might be expected. To recommend some plan of systematic observation, based on the co-operation of many observers, carried on with every possible auxiliary from collateral sciences and non-professional labourers, and for a series of years, with the sole hope of establishing some *useful truths*, is the object of, and the only apology for continuing, the present observations.

I have, myself, for some years in succession, endeavoured to keep records of the appearance and disappearance of epidemics, and of the sensible characters of the weather in different seasons. The review of these imperfect registers, commenced in the country, continued, with many interruptions, in London, and resumed with more regularity and system, but with limited opportunities, since my return to Warwickshire, does but painfully impress me with the conviction, standing as they do, alone, of their inutility. They merely shew me how much *might* be done if set about in a proper manner, and aided by various co-operation ; and how inefficient the observations of any *one* individual are likely to be, even at the close of an ordinary life spent in observation, as the foundation of useful conclusions.

Although it is highly probable that there are medical observers, in various parts of this kingdom, who have been able to keep registers more full and complete, and, consequently, more satisfactory, I am much impressed with the fact that I hardly know more than half a dozen individuals who have so occupied themselves, in a tolerably extensive range of professional acquaintance ; and, on the whole, I altogether doubt whether the exertions of any one individual, or, even, the isolated exertions of many, if not systematically arranged together for the sake of comparison, be any thing better than labour lost.

I find, however, that I have recorded some observations, which, if largely confirmed by other observers, would form the foundation of suggestions of some interest to the public. One or two of these I may take this opportunity of very briefly alluding to.

The first which I shall mention, relates to *the choice of localities for country houses*. On looking back to the events of several years of country practice, I am disposed to think that, as regards single houses, and of the better class, the occurrence of fever is more common in those in elevated, than in those placed in low situations. It has certainly happened to me, in many instances, and in different years, to attend very severe cases of fever in country houses, possessing what would be ordinarily considered the most eligible site, by the side of, or high upon a hill. In several of these instances, also, I have known the whole family successively attacked, and, in one instance, the families of two separate houses on the same hill, whilst in the valley beneath, and in a town situated at the foot of the hill, not a

single case of fever was to be met with. I believe that in all, or most of these cases, the elevated ground was of a damp character ; but I know that in some of the cases the valleys were not drier. A fact of this kind, stated on the authority of one practitioner, is of no value : and it would, I conceive, be very interesting, and very useful, to have it confuted or confirmed, and if confirmed, explained. It occurs to me that I have seen a similar observation respecting our fevers, in some part of Dr. Parry's writings ; and also in the works of some American authors, respecting yellow fever in some parts of America ; and I find that Mr. Annesley, in his *Researches on the Diseases of India and of Warm Climates*, states that the heights which rise out of the marshes at Port d'Espagne, in Trinidad, and similar situations in Dominica, Jamaica, and in the East, present examples of the same kind.*

The fact has been, in the latter instances, attributed to the attraction of the rising fogs and vapours to the sides and ridges of the hills ; and, certainly, whoever watches the apparently capricious movements of the heavy dew or fog in summer evenings, will perceive something in their course analogous to the equally fitful marching and halting of certain epidemics.

Many of the country houses in England are surrounded with circumstances unfavourable to health.

* Many observations of this kind might be quoted from the accounts now published of the diseases of other climates ; but the general or popular opinion in this country is quite in opposition to them as regards our own.—The reader may be referred to the art. *Miasma*, in the *Cyclopædia of Practical Medicine*.

They are not uncommonly placed on a gentle acclivity on the edge of a marsh, and, for the sake of the prospect, exposed on that side, although it may be the east or north ; whilst on the other side, where the ground rises and is more diversified, they are thickly enclosed by trees. Frequently, being thus laid open on one side to malaria, and fenced in on the other by hills, woods, shrubberies, garden hedges, or high walls and stables, they become perfect *boxes* of malarious influence, and are either repeatedly visited by fever, or are the unsuspected cause of the declining health of several of the individuals of the family ; for the malaria, when it does not produce fever, seems, in numerous instances, slowly to derange the digestive functions, and either, especially, to disorder the liver, the stomach, and the spleen, or gradually, with less palpable local effects, to undermine the whole health.

The only other observation which I have to make respecting residences, regards the houses of the poor ; and it is one which I make with more confidence than the preceding. Although I have so often found fever affecting all the inmates of cottages in low and damp situations, as to entertain no doubt of dampness, combined with other circumstances, being greatly concerned in producing fevers, I yet remarked, for some years in succession, whilst practising at Stratford, but particularly in the year 1826, that, whereas, of the new cottages, built in rows, and of brick, and slated, and having a very neat appearance, and situated quite *away* from the river, there was hardly one in which a case or cases of fever did not occur, the inhabitants of the old-fashioned cottages,

although living in a lower situation, and even by the side of the river, hardly presented one case of fever during the whole period. Whenever fever occurred in houses in the old but better streets, also, which it rarely did, it was, always, and without a single exception, in those where there was a most striking want of cleanliness and of comfort. One example of this kind was in a small house adjoining my own ; all the family were ill at one time, the mother, the father, and several children, and they were indebted to an accidental discovery of their forlorn situation for a rescue from all the evils which privation and dirt, and a house made offensive by a neglected drain, seemed to have brought upon them. At that time there was not another case of fever in that street, nor, I believe, any where except in the rows of new cottages already spoken of, and which were in other parts of the town. These new cottages resembled such as are now common in every town, and for which the increasing population causes an immediate demand ; being usually built by wealthy tradesmen, who find they can, in that way, secure good interest for their money ; often on such limited ground, as to have no space or use for a back door, and having, perhaps, only one small casement in the back of the house ; large privies in the centre of the row, rendering some of the houses almost uninhabitable ; the manure heaps in front, and a surface never drained and dry ; the walls and slated roofs thin, also, and affording imperfect protection both from the heat of summer and from the cold of winter.

All who have had opportunities of observing epidemic and eruptive fevers, for several years in

succession, must have recognised some of the forms so admirably described by Sydenham, and, probably, other varieties or modifications of symptoms and of type. The causes of these varieties still rest in great obscurity, and yet the character of the varieties is so important as regards the treatment, that no single question more merits the attention of every medical enquirer : for nothing but observation on the most extended scale, and pursued with the greatest industry and accuracy, and for a long series of years, can be expected to lead to any results of consequence. Thus, when I look back on the records of what I myself observed, I find that in the latter part of the year 1824, and beginning of 1825, the small-pox was more or less prevalent in Stratford ; after which time, until I left Stratford, at the end of 1828, I hardly remember seeing one case of that disorder ; and I know that I could not, at the time, discover a single probable cause for this diversity. In almost every month of every year, something quite as inexplicable is occurring ; and the very commonness of the occurrence averts attention from its origin.

Every physician in country practice, hears, in the course of his daily duties, of the measles being in one district, or the hooping-cough, or scarlet fever, or typhous fever, whilst other districts within the range of his practice are free from them. A series of observations relating to the appearance, character, duration, and line of progress of these familiar maladies, would throw some light on the laws of all epidemics, including cholera, which seems, and, perhaps, only seems, to follow rules less general than the rest. My own attention became first directed to

these circumstances, with any degree of regularity, in August, 1826, at which time an epidemic fever began to prevail at Stratford, which did not disappear until the spring of 1827 was far advanced. The summer of 1826 was unusually hot and dry; the autumn was so mild, and soft autumnal showers were so frequent, that every thing put on the appearance of a second spring: typhous fever had prevailed a good deal in the spring of the year, but had disappeared during the summer months; and it was in August that cases of fever began to occur, commencing with *diarrhæa*, a symptom which had not been observed before, and which was eventually found to be of very difficult management. About the same time cases of English cholera became frequent, and, in October, cases of fever, with vomiting at the commencement, and *diarrhæa* throughout their course. Neither the measles, nor hooping-cough, nor small-pox appeared; four cases of the latter disease were imported into the town, but the disorder did not spread. There were, however, several cases of a somewhat peculiar sore throat, and, in some of them, a slight efflorescence on the skin. In some of the cases of fever there was sore throat, but more were marked by peculiar nervous agitation, sudden attacks of tremor, disturbance of the heart, and mental agitation, and, sometimes, occasional perspirations indescribably profuse; symptoms which seemed most readily to yield to anodynes given in the *infusum rosæ*. These symptoms, and the not unfrequent formation of abscesses in the groins or axillæ, brought some of the cases very near to the description given by Sydenham, of what were, doubtless, but the same fevers exhibited in forms more intense.

During a great part of the month of January, and the beginning of February, 1827, there was rather severe frost. Fever still prevailed, *without* diarrhæa ; but a severe cough was present in every case. The tongue was less red than in the winter epidemic, and there were fewer irregularities in the course of the complaint ; such as delusive appearances of recovery, followed by severe symptoms, which had often been observed in the winter. The brain and nervous system were still much affected in several cases ; sometimes there were spasms or agitation of the trunk, limbs, and head, with contracted hands ; and, in one case, there was *dumbness* for a fortnight, (in a child,) removed, at last, by an *enema terebinthinæ*. The debility was great, and the convalescence always tedious ; furunculi and abscesses occurring in many cases.

In March, the cases of continued fever were very few in number. Hooping-cough and measles appeared, and some cases of ague. The weather was cold, with dry east winds in the beginning, and the usual gales from the south-west about the middle of the month. At the latter period, the *cough* ceased to be an accompaniment of the fever ; yet the south-west winds were very cold, with heavy rains or hail showers.

In April the weather was much milder, and then the diarrhæa reappeared in a few instances of continued fever which occurred.

I might prolong these remarks on fever, by contrasting the form just described, with that of the epidemic in the winters of 1827-28, and 1828-29 : but this may, possibly, with some observations on

the various *incipient* symptoms of fever, form the subject of a future paper. My object in this communication, is not to shew the extent of my own notices of weather and diseases, but, rather, the great field for observation which is here open to medical men, and, by the unavoidable imperfection of my own journals, the necessity of a combination of many observers, capable of applying many sciences to the same great object of observing on what causes various diseases, in all their various forms, depend. For some of the varieties or accidents of fever, we may perceive an approach to an explanation in the varieties or accidents of the weather ; but there is so much which is not in this manner explained, that it is evident our observations require to be more liberally extended.

If anything were wanting to excite industry and zeal in such a pursuit, the late lamentable introduction of a destructive epidemic, its extensive ravages, and its present, perhaps delusive, truce, would present reasons of the strongest kind. In connection with this terrible disorder, I cannot resist mentioning, that I think I find, even in my own imperfect notes, two illustrations of a fact which Dr. Hancock has, with much learning, illustrated in the article *Influenza*, in the Cyclopædia of Practical Medicine ; namely, that the appearance of cholera, in England and other countries, in a form of unusual severity, has generally been preceded by a wide-spreading and severe influenza. One of these illustrations is well known to all observers ; the other excited less observation.

In the course of the severe winter of 1829-30, before the cholera was expected in England, or talked of, except as a distant evil, I find the following notes, which, at least, prove to myself, the value of recording at the time facts which would not otherwise be found stored in the memory.

“Since the middle of December, (this note is dated London, January 18th, 1830,) the cold has been extremely severe. Dense fogs have repeatedly ushered in severe frosts, with snow; and there have been alternations of cold thaw. The winds have been chiefly from the north, north-east, and east. As early as the 16th or 17th of December, I observed cases of severe catarrh, in the form of coryza and bronchitis, accompanied with pains of the limbs and fever. All the patients complained of being tormented by a continual succession of faces or figures. The disorder commonly lasted three or four days, with great severity, and then the patient rapidly recovered. At the same time erysipelas was very prevalent and fatal in some large institutions, and in some schools. There were many cases of inflammatory affections coming on after confinement. Rheumatism has been common. Asthmatic patients have suffered much. Many old persons have died, including some instances within my own knowledge in which there was a diseased state of the heart.* *Within the last week I have met with some cases, and have heard of others, of irritation of the bowels; in some, with troublesome diarrhæa; in some, I am informed, with cholera, and in others, with a little*

* It will be recollected that Sir T. Lawrence and Mr. Tierney died in this month; and the death, in both cases, was ascribed to this cause.

nausea ; a feeling of heat round the body, from the lumbar region to the umbilicus, and slighter diarrhæa. These affections of the intestinal canal resemble what are usually met with in the autumnal season."

In a subsequent note, referring to the end of May and commencement of June, 1830, I find an observation which seemed of little consequence at the time, but a portion of which (marked in italics,) conveys a striking resemblance to what would be a correct description of several of the cases of cholera, witnessed by me, during a short visit which I paid to Bilston in autumn last, when the disease was raging there with singular violence.

"During the last three weeks (note dated London, June 5, 1830,) we have showery weather, and, sometimes, heavy rain. The wind has been, occasionally, easterly and cold ; latterly, from the west, and warm, until the air has become cooled by showers, so as to be very much changed in a few hours. On the 23rd of May we had a violent thunder storm. *During the last week I have observed several cases of diarrhæa, coming on very suddenly, attended, in all instances, with nausea, and, in some, with vomiting. The attacks were sudden, attended with pain, white tongue, a quickened pulse, and hot skin ; and the complaint soon yielded to anodynes, but left the patient sensibly weakened for a few days.* These cases resemble those which we call *cholera*, occurring in the autumn, and, commonly in the same kind of showery weather, although the autumn may be as cold as the spring commonly is. They seem, therefore, more connected with the moisture of the air, or some unknown state or quality co-existing with the moisture."

I may here remark that, in the greater number of cases of fever in the London fever hospital, in the autumn of 1830, diarrhæa was a symptom.

The medical events of 1831 were too striking to be yet forgotten, and I shall only allude to them in further support of the proposition to which all these observations are but preliminary.

A mild and showery April (1831) was succeeded by an unusually cold and dry month of May, in the course of which the night frosts were very destructive to vegetation ; although there was often a hot sun, but with an east wind, in the day time. After this we had a long continuance of fine weather. June, July, and August, were particularly warm and open ; so that it was commonly remarked that we had quite “an old fashioned summer.” In August there were some severe thunder storms, with heavy rain, but not of long continuance. September and October, although less equal, were, for the most part, warm ; many very warm and showery days occurred, with a peculiarly oppressive atmosphere.

All this apparently beautiful season, however, so agreeable to those in perfect health, was a season of most extensive sickness. In the months of June and July especially, both London and the country throughout England, were visited with an *influenza*, or epidemic catarrh, which might, at one time, have been said to affect almost every individual in every house. How soon and strikingly *this* influenza was followed by cholera, need not be told. Even throughout the summer and autumn, irritations of the mucous membrane of the mouth, stomach, and intestines, were met with in every conceivable degree, from a

blistered mouth to severe diarrhæa. I did not see or hear of many cases of dysentery.

It will shew the imperfection of common observations very strongly, if we only recollect how little distinguished the weather of October, 1831, was, from the same month in 1832; and that, in the first, the cholera appeared in England, whilst, in the last, it has been almost universally subsiding, and, as it were, all at once. The subsequent months of November and December, during which the cholera, in 1831, was gradually extending itself over our island, whilst, in 1832, it has been more rapidly subsiding, may, perhaps, usefully be contrasted. According to my own register, kept at Warwick, the following is an abstract of the sensible qualities of the weather, and some other circumstances.

NOVEMBER, 1831.

The early part of the month stormy. Violent winds from the west, and heavy showers or continued rain. Intervals of dryness, the wind veering to the north, and the air becoming clear and cold.

The nights, in the middle of the month, frosty, and a little snow fell.

About the 22nd, for a few days, *very* mild weather, like the first days of spring, with west winds; the aconite, the primrose, and other flowers of spring, making their appearance.

24th and 25th.—Heavy rain.

Wind west.

26th.—Frost. Wind west.

NOVEMBER, 1832.

In the beginning of the month heavy rains, chiefly at night. Occasional bright and cloudless days: the 4th was of this character, but suddenly overcast, and hail fell; wind north. The rains from the west, south-west, and east.

From the 4th to the 8th, bright and cold weather, with an east wind; then cold drizzling showers.

10th.—Cold and heavy rain. Wind east. At night the wind veered by the south to the west, and the weather became fair.

11th.—Fair and bright. Wind west.

12th and 13th.—Thick fogs.

NOVEMBER, 1831.

The weather continued cold to the end of the month.

I am informed that there have lately been, and still are, several cases of severe typhus at Warwick.

The Asiatic cholera declared to be at Sunderland, where it appeared in the last week of October.

Some cases of *English* cholera in this neighbourhood.

NOVEMBER, 1832.

14th and 15th.—Heavy rain for one and twenty hours.

16th.—Bright and fine. Great fogs at night, and from this to the 19th, during the day. Air frosty. Wind east.

20th.—Wind south-west, dry, but flying clouds. Warmer.

25th.—Colder. Rain at night.

26th.—Mild and bright.

27th.—Rainy, mild. Wind south-west.

28th.—At night a most violent storm of wind and rain from the west.

29th.—Bright and cold.

30th.—Cold: after the middle of the day rainy. Wind steadily west.

Typhous fever in some of the neighbouring districts; few or no cases here. Cholera in a few towns within twenty miles of Warwick; none at Warwick. Some cases of cholera and diarrhæa near Stratford, eight miles distant.

Very severe and obstinate colds prevalent in this month.

Scarlet fever in the neighbourhood; none here.

In the above months in each year, except a little more mildness and warmth in November, 1831, there is little perceptible difference, the weather being, as usual in November, extremely changeable; sometimes very mild, at other times cold and foggy, often rainy, and, occasionally, stormy. Yet in No-

vember, 1832, although a few cases of cholera were lingering in parts of the country which were the very last to be visited with the disorder, it was, generally, disappearing. In the next month the difference, in this respect, was more striking, but quite as unexplained by common atmospherical occurrences.

DECEMBER, 1831.

The first week, days very mild. Wind west.

Dec. 8.—After one or two days and nights of violent wind from the west, with sudden and heavy showers, the weather cloudy and warm. Thermometer to-day, 55°. We have, just now, generally warm and even sunny days, with very rainy nights; sometimes with thunder and lightning. This continued to be the character of the weather to the 20th.

20th.—Bright cool days. Less rain in the nights. Wind less boisterous.

31st.—The last week of December was cold and rainy, with east winds; occasional warm hours, as on Christmas day.

Hooping-cough at Stratford. Severe scarlatina, with sore mouth, at Rugby. The influenza again mentioned in London. Warwick healthy. At Sunderland the sudden change of the wind to the east, about Christmas day, was said to be followed

DECEMBER, 1832.

1st, 2nd, and 3rd.—Bright days; rainy nights; wind north west.

Between the 3rd and 4th, the wind shifted round by the north to east, and the weather became dry and very cold.

Early in the morning of the 3rd, there was thunder and lightning in the neighbourhood, with other electrical phenomena. The Meteorological Journal of the Medical Gazette, mentions a heavy shower of rain in the evening of the 2nd, with thunder and vivid lightning. A violent storm of wind and rain came suddenly on here, also, in the afternoon of the 2nd, from the west, but without thunder and lightning. I observed the rooks, and other birds, in unusual commotion, some time before the storm was visibly threatened.

5th.—Bright and cold in the day; mild and rainy at night. Wind west.

11th.—During the last few days, the weather singularly mild. Fine moonlight nights.

DECEMBER, 1831.

by the appearance of cholera, with great severity, at Gateshead.

I have found several gouty patients complaining this month.

DECEMBER, 1832.

West wind. Thermometer 46° .

18th.—The days yet fine and mild; the nights have been boisterous and rainy, with thunder. Last night a violent storm of wind from the north-west, with some rain, but less than in some other places. Occasional frost at night.

23rd.—Mild weather. Wind west. Rain generally towards night. To-day heavy rain in the morning from the north-west. At noon the wind veered completely round by the north to the east, and the weather cleared up.

24th.—Dry and fine; wind west.

25th.—A night of heavy and continued rain, only clearing at noon; then bright and fine. Wind north-west by north.

29th.—After some beautiful and bright days, a cold east wind with raw fogs. Last night and to-day heavy rain. Wind south-east by south.

31st.—Yesterday cold, with east wind; dry; rain at night. This morning snow fell. Snow fell about 6, a. m. Fair at nine; wind north-west. At eleven wind veered to the north, and cold heavy rain fell. The rain ceased about noon. Wind again north-west.

In the afternoon bright and dry. Wind east north-east.

The ground, generally, is wetter than for many years past.

DECEMBER, 1831.

DECEMBER, 1832.

Severe colds have prevailed, with acute bronchial disorder. Little other illness. Some cases of scarlet fever at Kenilworth, with typhoid symptoms. The same disorder was prevalent in other parts of the neighbourhood in October and November.

No cholera in this neighbourhood. It is said to have re-appeared in the north of England.

I do not think that the rumour in the concluding paragraph of the above register has been confirmed; and whilst the medical events of December, in 1831 and 1832, were so different, their character, as to weather, it will be seen, was pretty uniform. Bright and often mild days, many rainy nights, and rather frequent storms, characterized each; in short, the usual weather of that season.*

In the early part of last year, every week brought intelligence of the gradual spreading of the cholera over England and over France. The month of *January* was unusually mild; at the end of that month, the cholera had spread southward to Berwick, and one suspicious case was reported in London.

February was variable, without extremes. In the middle of the month the cholera was reported to be at Limehouse.

In *March*, a very severe bronchitis was epidemical here; and in the south of England, perhaps, more

* By the kindness of a scientific neighbour, I have lately been supplied with accurate daily registers of the thermometerical and other changes, but it is unnecessary to add to the length of this communication by inserting them.

extensively ; chiefly among children, and with an excessive secretion of yellow-coloured mucus ; in some cases it closely resembled hooping-cough. Cholera prevailing in London, and reported in France. The month, until near the close, was dry, with east winds. Warmer weather, with showers from the south-east, towards the end, excepting on the 23rd, when there was a north wind, and snow fell.

In the early part of *April*, the weather being clear and cold, with east winds, there seemed to prevail what might be termed a general disposition to *spasmodic* affections in many parts of this county : many cases of very severe cramp in the stomach occurred, and some sudden deaths. The cholera prevailing at Ely. Cases of typhous fever in Warwickshire. The end of April was rainy ; the cholera had nearly disappeared from London. Cholera in Dublin.

May was generally cold and moist ; but some days were as warm as summer. Occasional hail storms and thunder. About this time, or during the spring months, generally, much sickness prevailed among the young gentlemen at the public school at Rugby ; such as, according to reports from different sources, severe cynanche tonsillaris, laryngitis, scarlet fever, and a very troublesome form of mumps. Single cases of cholera occurred in various places.

But in the months of *June*, *July*, *August*, and *September*, in all the usual varieties of weather of those seasons, and without any peculiarity, except (what I merely mention as *not altogether* an unfounded conjecture,) greater indications than usual of electrical changes in the atmosphere, the cholera prevailed in almost every part of England. In some

places, only one or two cases occurred, as at Warwick ; in some, as in the village of Newbold, near Rugby, half the population were attacked. At Bilston, in Staffordshire, in the midst of coal mines, the disease appeared with suddenness and severity, and, in four weeks, carried off six hundred persons, out of a population of about fifteen thousand. The large and important town of Birmingham may be said to have escaped, as only a very small number of cases occurred there. The exemption may be, in part, attributed to the vigilance of the board of health, and other circumstances ; but the fact of so large and crowded a town being unvisited by an epidemical disease, which was raging at Bilston, Dudley, Wolverhampton, and other places in its immediate neighbourhood, as also at Droitwich, Worcester, Gloucester, and Kidderminster, is sufficient of itself to shew, that any observation of ordinary atmospherical phenomena *alone*, cannot be expected to throw much light on the obscure subject of epidemics.

The comparative immunity of Coventry, considering the closely-built streets and crowded population, (although, to a certain extent, the cholera *did* prevail at Coventry,) is also remarkable. Northampton was scarcely visited by the epidemic ; but Aylesbury and Bicester suffered severely. Leamington, Warwick, and Stratford, may be said to have altogether escaped ; although the disease prevailed severely, for a few weeks, at the end of the year, in a village within one mile of the latter place. Evesham and Cheltenham seem, also, to have had but a very small number of cases.

Those acquainted with the parts of England now mentioned, or who will take the trouble to look at their situation in the map, will see that there is much in the circumstances thus alluded to, which ought to excite our curiosity and our most industrious enquiry. It is time, and, it seems, one may almost say, demanded, by the scientific character of the present age, that these things should cease to pass over us as the mere causes of especial wonder. But the hope of explaining them can only be properly indulged after the organization of more effectual means of investigating these mysteries of nature than have yet been brought to bear upon them.

In the attempt, however, to illustrate questions like these, many collateral facts and explanations will be gathered as we proceed, to encourage and to reward our industry. The road to great truths may be long and intricate, and difficult, but it is not rugged, and, least of all, is it barren. Every step made in the right direction, reveals some new prospect, or causes familiar prospects to be seen in new and unaccustomed lights.

The great problem, for instance, which is continually presenting itself to the medical practitioner, and on which so many, and such important, individual, and, even, national interests depend ; *the communicability or non-communicability of fevers and other diseases*, as well as other problems connected with their *origin*, would, in all probability, be solved in the course of such an enquiry as may be instituted, by the association of many investigators, in all parts of the kingdom. If I may draw any conclusion as to the success of others, in their attempts to collect

instructive evidence, on this particular subject, from the results of my own endeavours, I should say that nothing could be more perplexing than the apparently contradictory facts which are met in the way. In some instances I have traced the communication of fever, by children or by their clothing, from distant houses in the country to schools in a town; other children have become affected, have been removed to other houses in different parts of the country, and then other individuals in the houses to which they have been removed, have become similarly affected, the parents, the children, and some of the servants; furnishing as clear evidence of communication as could well be desired. In other instances I have noticed the occurrence of fever, in its severest forms, in a single person of numerous inmates of a country house, half a mile or a mile from any other habitation: several of the family have been for weeks exposed to fatigue, watching, anxiety, and various causes usually considered as predisposing; and yet none have been attacked except the first individual. Such contradictory occurrences must have been met with by all impartial observers; but they have never yet been collected in sufficient number, or with sufficient care, to become the materials of that extensive and accurate comparison which would, perhaps, explain what now appears to be inexplicable.

For the elucidation of this, and of all the important questions connected with the influence of external circumstances on mental and bodily health, as well as of several medical questions of much interest not

only to the faculty but to mankind ; I can imagine no plan which would be at once so practicable and so effectual, as the formation of a Society for the purpose, in each county in England.

1.—As the subject of their investigations may be said to form a branch of Natural History, it might be convenient to call such an institution a **NATURAL HISTORY SOCIETY**.

2.—The Society, which might be much promoted by the exertions of the Local Committees of the Provincial Medical and Surgical Association, should consist of scientific men of every class and description within the county, and of all who might take an interest in it, or be disposed to encourage so useful an undertaking : for which purpose the general object of the Society should be carefully explained to men of science, to the nobility and gentry, the magistrates and clergy, and to all holding official situations in the county ; and such measures taken to ensure public patronage and assistance as might, in each county, be thought advisable. An annual subscription of one guinea, would, probably, provide funds for every purpose.

3.—The Society might be divided into **SECTIONS**, for the particular investigation of distinct subjects of inquiry ; such as

A—*Section of Statistics*—occupied with everything relating to the cultivation of the county, its population, employment of the inhabitants of its towns or of country labourers, their wages, diet, the regularity of their labour, their habits of life ; description of houses inhabited by different classes of persons : situation of particular towns, cities, or

villages ; religion ; number of lunatics, idiots, and deformed persons ; hospitals, infirmaries, dispensaries, and arrangements for the sick poor and parishes and pauper lunatics ; prisons and penitentiaries. This very important section would admit of, or even require, many subdivisions. The promotion of a plan for procuring *correct* bills of mortality might usefully occupy a part of their consideration. Accurate lists of births, marriages, and deaths, in country towns and villages, have long been wanting. The age of the deceased persons, and the nature of their diseases, if correctly stated, would also furnish desirable illustrations of the general healthiness of particular districts, and of the time of life most subject to particular disorders.

B—Section of Geology and Mineralogy—for pursuing inquiries connected with these sciences, and furnishing a complete account of the geology and mineralogy of the particular county.

c—Section of Geography—to draw up exact descriptions of the surface of each county ; the number and course of rivers ; the nature of the springs ; the hills, vallies, marshes, and every peculiarity.

D—Section of Meteorology—to describe the climate and general weather of each county, and causes of any peculiarities ; and to keep exact records of diurnal changes, and annual or other differences of the atmosphere, as to temperature, dryness, calmness, and electrical phenomena. Many vulgar errors respecting the influence of weather on health might thus be removed.

E—Agricultural Section—to be more particularly occupied in the description of the various kinds of

agricultural labour ; the state of cottages and farms ; the general extent of drainage ; stock in each county, and their food ; and to investigate every thing relating to the diseases affecting the lower animals. By this section, and by that of geology, would, of course, be noted any extensive changes in the surface, as the breaking up of large pasture lands, the opening or closing of mines, &c.

This section, or the next, might also comprehend the interesting departments of Ornithology and Ichthyology ; a description of the kinds of birds and fishes common in each county ; the times of their arrival and departure ; and an account of the same circumstances regarding the insects, would form useful occupation for this section.

F—*Section of Botany*—to describe the indigenous or common plants of each county, and particularly those possessing medicinal properties : perhaps, also, to encourage the cultivation of such remedial plants as suit the climate.

G—*Section of Archæology*—Notices of the past history, and habits and vicissitudes of the people of each county ; or any records of its former state of cultivation ; of its climate at distant periods ; of the past and present modes of dress, architecture, &c., would concur to the general objects of the society, by illustrating the effects of these circumstances.

H—*Section of Chemistry*—principally occupied with animal chemistry, and especially with the actual effects of the various mineral waters on the excretions, on the blood, and on the secretions ; a subject much neglected, and promising abundant results to those attending to it.

I.—Section of *MEDICAL Topography and Statistics.*

The business of this section would be *to apply all the exact knowledge furnished by the other sections to the subject of health and disease*: to note, with extreme care, the relation of phenomena developed in the human body to the natural, or statistical, or historical and political, or physical and moral circumstances in which the subjects of such phenomena were placed.

It would also be their especial occupation to register every *undoubted* fact relating to epidemics and endemics; their time of appearance; their character; their obedience to apparent predispositions; their range and course; and all the other circumstances for observing which, it has already been said that country practitioners possess particular opportunities; but which, supposing such a division of labour as is contemplated in the scheme of County Natural History Societies, would be brought more easily and distinctly before competent observers, however and wherever situated.

It must always greatly depend on this section “to discern, with precision, the constitution of the seasons, and the diseases that attend them;” a discernment which Hippocrates esteemed “the greatest excellence in the art of physic;” (*Epidem. lib. iii. sect. 3.*) and to enquire into the nature of the laws of what Sydenham termed the “occult temperament or constitution of the air, productive of different diseases in different seasons.” From the long-continued labours of this section in each County Society that may be established, labours quite consistent, nay, closely connected, with the utmost attention

to practical duties, we may expect an elucidation of some questions heretofore, sometimes, considered as too hidden in their nature to warrant much consideration being given them. Hoffmann, when dissuading the physician from fanciful and useless contemplations, mentions, as one, the question "*in quonam stupenda vis miasmatis et contagii in peste aliisque morbis consistat.*" But, with advancing science, we approach nearer to such discussions ; and, since the time of Hoffmann, something has been done in this direction, although it yet remains undecided whether the intermittent and other fevers of marshy countries and hot climates, are produced by any specific matter in the atmosphere, or are attributable to physical causes, "dependent on the great differences of temperature between day and night, and the refrigerating effects of the dense fogs, common in such situations in the evening and morning ;"* and this question can only be determined by correct, wide-extended, and long-continued observation.

The members of this section must, probably, for a long time, remain content with little better than *negative* evidence on the subject of all epidemic disorders ; but inquiry will thus become directed to other channels, in which more direct information may lie hidden. The older physicians, accurately noting some of the variations of the air, as its dryness or moisture, its coldness or warmth, and also some obvious qualities of waters and soils, ascribed too much, or, certainly, on too slight a foundation, to the influence of the heavenly bodies ; and deviated out of paths of acknowledged difficulty, into the

* Davy, Consolations in Travel, Dial. iii.

more imaginative region of astrology. The extravagances into which they fell, not only brought the science of astrology into disrepute, but even the influence of the heavenly bodies upon this planet and its inhabitants; and, perhaps, contributed to cast, for a time, somewhat into the shade, the better founded parts of the infant science of medical topography. Up to the present time, it has only attracted such partial attention as, whilst it has been sufficient to shew its value, has not been adequate to acquire its various benefits for the general science of health and disease. What will yet remain undone for ages, *without* co-operation, may be accomplished, to a great degree, at least, in comparatively a short time, by the *combined* labours of Natural History Societies, instituted with an especial regard to this most important object.

It would be quite necessary that the members of the different sections, or some of them, should meet twice or four times in each year; to compare their several observations, and to arrange them so as readily to be compared with the observations of future years. These meetings might be arranged to suit the time when the Quarter Sessions are held.

No fact, at all *doubtful*, should be classed in any other way than as a *conjecture*; nor should the members allow themselves to be too sanguine of immediate results or discoveries, for which many years, half a century or a century, would be required. The interrogation of Nature, which it will be their office to attempt, relates to many things purposely shrouded in some degree of mystery: to set them in a point of view in which all their relations may be

made intelligible and plain, is a great work, and not to be lightly or soon effected. It is a knowledge not to be snatched by impatient boldness, nor yet to be attained by a pervading imagination ; but it will be the prize of long-continued and calm observation, pursued with a pure and unaffected love of truth. It may be, that none of those who commence such a work will live to see more than a commencement of the benefits to accrue from it ; but if there is any direction which professional industry can take with a sure hope that benefits *will* arise from such exertion, it is this ; and there is in such a prospect no want of inducement

“ To shun delights, and live laborious days.”

Many advantages would arise from the annual publication, in each county, of a little work resembling the excellent *Annales* of the French Departments. Such a little book might contain, in addition to a good deal of the usual information comprehended in an almanac, a short history of the county, and a general account of it with relation to the sections already mentioned. By this means, not only would the history and antiquities of each county become well known to every man in the shire, but its general statistics, and much very useful and interesting information concerning its cultivation and productiveness, calculated to be serviceable to people of every class and degree. Each *Annuaire* (so to call it) should contain a meteorological account of the *past* year, and a statement of the epidemics which have prevailed in it ; their time and place of appearance ; the course taken by them ; and what diseases they followed or seemed to give place to ;

mentioning, also, the topographical character of the places where the epidemics appeared, and every other circumstance of consequence ; such as the prevailing weather, direction of the wind, &c, at the time.

In order to ensure a wider circulation for the *Annuaire*, it should contain as much information as possible concerning the manufactures, trade, roads, canals, and public works of the county ; and a list of persons holding any offices ; as the magistracy ; the officers of boroughs and of the militia ; the members of parliament. The nature of the different courts of session, and acts of parliament of local operation, might be explained, with many other matters not requiring here to be detailed. Such reports of the hospitals, or other public charities, as would shew the distribution and employment of their funds, would be very desirable.

Out of the County Natural History Societies, there could hardly fail to arise one more advantage, which did not enter into my first consideration of them. The gradual concentration, in *County Museums*, of a great part of the valuable collections already made by scientific individuals, or which would naturally be made in the course of the particular labours of several of the sections. The difficulty which individuals find in becoming even tolerably well acquainted with the geology, botany, and natural history of their own country, would thus, in a great measure, be removed : its products and manufactures would become familiar to every eye ; and its history and antiquities to every mind. A tour through the provinces of England and Scotland might then

become a tour of science as well as of pleasure, and the peculiarities of our island, displayed in numerous scientific collections, would attract distant and even foreign visitors ; whilst they would form so many lessons for young persons of our own nation, who are, generally, extremely ignorant of every thing relating to the country of their birth.

Although I have only spoken of the formation of Natural History Societies in each *county*, the vast utility of extending such institutions to the British possessions in other climates is obvious. But it might be well, first, to establish such a system within the limits of our own island, to be transferred, in a state which would secure its benefits, to any other parts of the world. By such an eventual extension, incalculable accessions would be made to the natural and physical history of man ; and boundless opportunities afforded of forming, by the comparison of the fullest evidence, correct opinions on many questions which have long formed topics of warm discussion, and which yet remain in very considerable obscurity.

The important questions, for example, relating to the epidemics of warm climates ; their causes, their range, and the circumstances which limit them and direct their course, could not be so fully investigated without collateral information being gained respecting the epidemics peculiar to our own part of the earth ; and both involve points greatly affecting the interests of many communities.

It is hardly necessary to observe, that in some counties, all the separate *sections* mentioned may not be so necessary as in others ; and that in some,

the business of a section must necessarily devolve upon an individual. No general rule can be given exactly adapted to each county. Indeed the whole of this proposal is submitted to the readers of the Transactions for their consideration and amendment. In some large and intelligent towns Societies already exist, which a very slight modification would fit for all the purposes contemplated in the plan now set forth. In all, however, it is not assuming too much for the medical profession to say, that I believe the establishment and conducting of Natural History Societies will mainly depend upon *them*. I am no less certain that wherever my medical brethren strenuously make the attempt, the attempt will succeed. The assurance of that success rests on their long-established character as persons of liberal acquirements and philosophical habits of thought ; on their humanity, and the general estimation in which they have the good fortune, not undeservedly, to be held in this country ; and it will, I doubt not, be a gratifying circumstance to the accomplished founder of our Provincial Medical and Surgical Association,* thus to see extended benefits arising out of his original and enlightened plan of medical and surgical co-operation ; and the local councils collecting the scattered science of each County, and directing it to the most beneficial ends.

There need be no hesitation about appealing to the public or to individuals in such a matter. It is for the public interest, it is for the benefit of *every*

* To the Members of the Association it is unnecessary to explain this allusion ; but some of the readers of the Transactions may be pleased to learn that it refers to Dr. Hastings.

individual ; for health is indispensable to individual happiness, to worldly prosperity, or the achievement of the best designs.

As regards the public interests, it may suffice to point out how much they are involved in several of the proposed objects of inquiry ; as in considerations connected with the site of towns, manufactories, or private houses ; the effect of different kinds of labour, and food, and drink ; the more successful *prevention* of fevers, cancer, consumption, the stone, and other painful and dangerous maladies ; the saving of lives in camps and garrisons abroad, or in expeditions ; and a more perfect estimate of the actual value of life at different ages.

On all these, and on many other points of hardly less interest, the observations previously made were made with so many disadvantages, that the current opinions founded on them are largely mingled with errors, which time is converting into hurtful prejudices. Of the *popular* notions respecting things useful or prejudicial to health, as relates to the human body, from helpless infancy to helpless age, there is scarcely one which is not erroneous ; and even of *medical* opinions on these subjects, there are many which are in the highest degree doubtful. Such, I believe, must they always remain, without some general plan of co-operation ; and I cannot but think that the plan now proposed, may, with some modifications or additions, secure the great advantages which have been lost in all time past.

The profession to which I consider it my happiness to belong will add to the many benefits which it has conferred upon society and upon mankind, by avail-

ing itself of the present disposition of the public towards all useful enquiries, and of the present state of science. To those who desire the advancement of medical knowledge, and the increase of man's means to avert physical evils, more than a hasty and temporary reputation and mere worldly advancement, such a plan as that which I have presumed to propose, will not, if practicable, require to be enforced by any laboured exhortations. The *question* of its practicability I submit to their liberal consideration, hoping that the subject may be advanced at the next Annual Meeting of the Association,* when I shall most respectfully solicit and accept the suggestions of the distinguished men with whom I have thus the honour to be associated.

In conclusion, I must observe, that the general comparison of the results of the investigations pursued in the County Natural History Societies, must necessarily become a labour of considerable extent ; and, although I believe every undertaking of this kind is with more spirit, and more successfully, carried on by individuals than by public authorities, the questions to be finally elucidated by the combined labours of the Societies, are so numerous and so important, that little doubt can be entertained, but that any assistance which it would be in the power of a liberal government to afford, towards the compilation and publication of general abstracts every year, or every two or three years, or whenever expedient, might, without much difficulty, be obtained. Some of the subjects mentioned in this paper were, occasionally, introduced to the consi-

* At Bristol, in July, 1833.

deration of the Society for the Diffusion of Useful Knowledge, when I was a member of the London Committee; and hopes were once entertained that by means of the Local Committees of the Society some general plan of inquiry might be instituted. But there were difficulties in the way of making those committees effectual, which difficulties would not be met with in the attempt to establish Natural History Societies. On the contrary, I feel assured that the promoters of such institutions would, in many parts of the kingdom, find the most intelligent and zealous co-operators in the local committees, already established for the diffusion of useful general knowledge.

But I cannot doubt that in each county of England and Scotland, there will be found a sufficient number of well-informed, public-spirited, and influential individuals, to ensure the success of an undertaking that must, in its progress, reflect both advantage and honour on the country at large.